REMARKS

Claims 1-9 have been examined. Claims 1-9 have been rejected under 35 U.S.C. § 112, second paragraph, claims 1-4 and 8 have been rejected under 35 U.S.C. § 102(b), and claims 5-7 and 9 have been rejected under 35 U.S.C. § 103(a).

I. Preliminary matters

A. Objection to the specification

The Examiner has objected to the specification because the reference numeral "11" mentioned on page 7 of the specification is not illustrated in the drawings. Applicants submit that the amendments to the specification overcome the objection.

B. Objection to the title

The Examiner has objected to the title because it is allegedly not descriptive. Applicants submit that the amendments to the title overcome the objection.

II. Rejection under 35 U.S.C. § 112, second paragraph

The Examiner has rejected claims 1-9 under 35 U.S.C. § 112, second paragraph, because the recitation of the surfaces of the resin in claim 1 is allegedly unclear. Since claim 1 has been cancelled without prejudice or disclaimer, the rejection is moot.

III. Rejection under 35 U.S.C. § 102(b) over U.S.P. 5,757,126 to Harvey III et al. ("Harvey")

Claims 1-4 and 8 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Harvey.

A. Claim 1

Since claim 1 has been canceled without prejudice or disclaimer, the rejection of the claim is moot.

B. Claims 2-4 and 8

Since claims 2-4 and 8 depend upon claim 5 and since claim 5 has not been rejected under 35 U.S.C. § 102(b) as being anticipated by Harvey, Applicants submits that the rejection is overcome.

IV. Rejection under 35 U.S.C. § 103(a) over Harvey and U.S.P. 6,432,561 to Yamazaki ("Yamazaki")

Claims 5 and 6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Harvey and Yamazaki.

A. Claim 5

Applicants submit that claim 5 is patentable over Harvey and Yamazaki. For example, claim 5 relates to a display panel having a resin substrate and inorganic barrier film. The inorganic barrier film is formed of silicon nitride oxide and covers surfaces of the resin substrate.

The Examiner acknowledges that Harvey does not suggest an inorganic barrier film formed of silicon nitride oxide, but maintains that Yamazaki cures and can be combined with the deficient teachings of Harvey. Applicants respectfully disagree.

For example, Yamazaki discloses a top-emission organic display device that comprises a substrate 101, which is preferably formed of glass, ceramic, plastic, or stainless steel. Thin film transistors ("TFTs") 102 and 103 are directly formed on the substrate 101, and pixel electrodes 104 and 105 are connected to the TFT's 102 and 103 (Fig. 1A). Cathodes 106 and 107 are formed on the electrodes 104 and 105, and a polymer-based light emitting layer 108 is formed on the cathodes 106 and 107 (Fig. 1B). Subsequently, a transparent anode 109 is formed on the layer 108, and a passivation film 110 is formed on the anode 109 (Fig. 1C). The passivation film 110 may include a silicon nitride film or a silicon nitride oxide film which contains almost no oxygen.

The Examiner argues that one skilled in the art would have been motivated to replace Harvey's dielectric material film 18 with Yamazaki's passivation film 110 to produce the invention recited in claim 5. Applicants respectfully disagree.

For example, Yamazaki relates to a "top-emission" organic display device, and the passivation film 110 is disposed above the light emitting layer 108 to protect the layer 108. Furthermore, Yamazaki does not suggest a passivation film 110 or any inorganic barrier film that

covers the substrate 101. On the other hand, Harvey relates to a "bottom-emission" organic display device, and the dielectric material film 18 in Harvey is expressly designed to cover the substrate 11.

Since Yamazaki's silicon oxide nitride film 110 contains almost no oxygen and since Yamazaki does not relate to a "bottom-emission" organic display device, the film 110 cannot be substituted for Harvey's dielectric material film 18 as the Examiner implies. Accordingly, Applicants submit that Yamazaki does not suggest the claimed inorganic barrier film and that one skilled in the art would not have been motivated to combine Harvey and Yamazaki. Thus, claim 5 is patentable over the cited references.

B. Claim 6

Since claim 6 depends upon claim 5, Applicants submit that it is patentable at least by virtue of its dependency.

Also, claim 6 states that the inorganic barrier film formed of silicon nitride oxide has a ratio of nitrogen to oxygen ranging from 0.13 to 2.88. The Examiner acknowledges that Yamazaki and Harvey do not expressly suggest the claimed barrier film, which is formed of silicon nitride oxide having the claimed range of ratios. However, the Examiner contends that the claimed range of ratios is an obvious design choice because it merely involves an optimization of workable ranges. Applicants disagree.

First, the Examiner's contention that the claimed range of ratios is an obvious design choice, because it is merely an optimization of workable ranges, amounts to no more than a per se rule. However, "[T]his method of analysis is founded on legal error because it substitutes

supposed per se rules for the particularized inquiry required by section 103. It necessarily produces erroneous results." In re Ochiai, 71 F.3d 1565, 1570, 37 U.S.P.Q.2D (BNA) 1127, 1132 (Fed. Cir. 1995). In fact, in In re Ochiai, the Court provided a detailed clarification of what it perceived to be a frequent misunderstanding among examiners.

> The use of per se rules, while undoubtedly less laborious than a searching comparison of the claimed invention--including all its limitations--with the teachings of the prior art, flouts section 103 and the fundamental case law applying it. Per se rules that eliminate the need for fact-specific analysis of claims and prior art may be administratively convenient for PTO examiners and the Board. Indeed, they have been sanctioned by the Board as well. But reliance on per se rules of obviousness is legally incorrect and must cease. Any such administrative convenience is simply inconsistent with section 103, which, according to Graham and its progeny, entitles an applicant to issuance of an otherwise proper patent unless the PTO establishes that the invention as claimed in the application is obvious over cited prior art, based on the specific comparison of that prior art with claim limitations. We once again hold today that our precedents do not establish any per se rules of obviousness, just as those precedents themselves expressly declined to create such rules. Any conflicts as may be perceived to exist derive from an impermissible effort to extract per se rules from decisions that disavow precisely such extraction. (Emphasis added) In re Ochiai, 71 F.3d 1565, 1572, 37 U.S.P.Q.2D (BNA) 1127, 1134 (Fed. Cir. 1995).

Thus, the Examiner's reliance on the per se rule of "mere optimization of workable ranges" does not support his § 103 rejection of claim 6.

In addition, the Examiner contends that the claimed range of ratios is merely an obvious design choice because

> the applicant fails to identify the use of silicon nitride oxide in a ration [sic: ratio] of nitrogen to oxygen from 0.13 to 2.88 as the inorganic barrier film composition to solve any problem or to yield any unexpected result that is not within the scope of the teachings relied upon.

(Office Action, page 4). Applicants are somewhat confused by the Examiner's assertion. Specifically, the portion of the illustrative non-limiting embodiment described on pages 8-10 of

the specification describe how the claim range of ratios may be used to solve various problems and may yield unexpected results.

Furthermore, the claimed range of ratios would not have been obvious in light of Yamazaki, because Yamazaki appears to expressly teach away from using the claimed range. For example, as disclosed in column 4, lines 39-41, of the reference, the passivation film 110 is preferably formed of a silicon nitride oxide which contains almost no oxygen. Thus, the ratio of nitrogen to oxygen in Yamazaki's silicon nitride oxide film 110 would seem to be much higher than any of the ratios within the claimed range.

Accordingly, Applicants submit that claim 6 is patentable over Harvey and Yamazaki (alone or in combination).

V. Rejection under 35 U.S.C. § 103(a) over Harvey

Claims 7 and 9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Harvey. The Examiner contends that Harvey does not expressly suggest that the inorganic barrier film is deposited by sputtering (as in claim 7) or the use of two of the same inorganic barrier films (as in claim 9). However, the Examiner contends that such features would have been obvious. While Applicants disagree with the Examiner's position, claims 7 and 9 are patentable at least by virtue of their dependency upon claim 5.

VI. Newly added claims

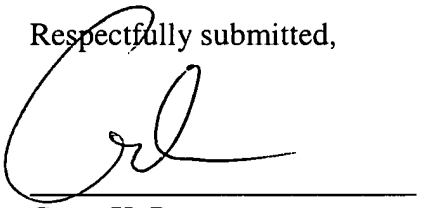
Applicants have added new claims 10-13 to provide more varied protection for the present invention.

VII. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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